Alternate Fuels for Vehicles

@*376. SHRI PUTTAPAGA RADHAKRISHNA: Will the Minister of ENERGY be pleased to state:

(a) whether it is a fact that an experiment has been conducted recently by Indian scientists engaged in the research for alternate fuels for vehicles; and

(b) if so, what are the results so far achieved in this regard?

THE MINISTER OF ENERGY AND THE MINISTER OF COMMUNICATIONS (SHRI VASANT SATHE): (a) Yes, Sir. Under programmes of the Department of Non-Conventional Energy Sources several alternate fuels for Surface transportation are being experimented with. They include Battery Power, Methanol, Hydrogen and Compressed Natural Gas (CNG).

(b) A statement is laid on the Table of the House.

Statement

Department of Non-Conventional Energy Sources has introduced Battery Operated Vehicles programme in the country in order to conserve the petroleum fuels and to provide noiseless and polution free transportation. Delhi city is now running a fleet of 75 buses on various routes. Jammu and Kashmir State Road Transport Corporation is running a fleet of 10 vehicles and attracting domestic as well as international tourists. Battery buses have been sanctioned to Madras Port Trust, Madhya Pradesh Electricity Board and Rajasthan Energy Development Agency.

Government is planning to further spread the demonstration and use of battery buses in various States and Union Territories. Gradual introduction of these buses would help in providing alternative to petroleum vehicles thereby conserving valuable foreign exchange and also reduce pollution levels in towns as these vehicles are smoke free.

Reserch on methanol as a replacement of upto 20 per cent diesel has been carried out at Indian Institute of Petroleum, Dehradun and appropriate engines have been developed. A pilot R and D project for operating 10 buses fitted with such engines that use methanol-diesel mixture has been started by the Department of Non-Conventional Energy Sources at Delhi in collaboration with the Delhi Transport Corporation, Indian Institute of Petroleum and Indian Oil Corporation.

In another joint project of Bharat Petroleum, IIP and Maharashtra State Road Transport Corporation, Sponsored by Oil Industry Development Board, 25 buses fitted with diesel-methanol engines are operating for field trial at Talegaon Depot near Pune in Maharashtra.

A research project has been undertaken for utilising Hydrogen as fuel for transportation. Various methods of using hydrogen fuel in the engines are being studied. The Hydrogen engine design and operating parameters have been optimised for the best engine performance consistent with trouble free operation and minimum exhaust emission. Hydrogen powered two wheelers have been developed and trials are in progress. Hydrogen Injection System has been perfected to overcome the problem of flash

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back, preignition and knocking associated with hydrogen combustion. A hydrogen operated motorcycle was put for demonstration in Indian Science Congress Session held in Pune in January 1988. Endurance testing of automatic type multi cylinder engine and also single cylinder engine the type used in motorcycles and scooters is currently in progress to assess the engine material compatibility, reliability in Hydrogen fuel.

One pilot but with Compressed Natural Gas (CNG) and diesel mixture as fuel has been tried in a Gujarat State Transport passenger bus. The bus has run 100 hours of continuous run. Static and dynamic load testing have been done successfully. It is planned to operate 10 such buses at Baroda. Use of CNG for road transportation for pilot scale demonstration and to gain experience at other places is under consideration.

The ONGC are operating a jeep in Bombay on CNG to gain experience.

Targets for providing employment to Educated unemployed

*377. DR. MOHD. HASHIM KIDWAI: Will the Minister of INDUSTRY be pleased to state:

(a) the targets fixed for 1986-87 and the current financial year in the scheme for providing empolyment to the educated unemployed in U.P.;

(b) the funds earmarked during these years to implement the scheme in the State and the actual amount spent so far;

(c) the number of applications of the unemployed youth not entertained by banks; and

(d) the action taken by Government in this regard?

THE MINISTER OF INDUSTRY (SHRI J. VENGAL RAO): (a) Targets under SEEUY Scheme in U.P. for the year 1986-87 was fixed at 31300 beneficiaries and an *ad-hoc* target has been fixed at 15650 during the current financial year.

Under the scheme, the Central Government allocates to States only physical targets in terms of numbers of beneficiaries and do not allot funds to implement the scheme. The loans are sanctioned by the banks on the recommendations of the DIC Task Forces. The capital subsidy to the extent of 25 per cent on each loan contracted is paid out of Central Budget routed through Reserve Bank of India. During 1986-87 the banks sanctioned 23,197 cases for an amount of Rs 5002.38 lakhs. The data regarding 1987-88 will become available only after 31-3-1988.

(c) and (d) In 1986-87 against a target of 31,300, DIC Task Forces had recommended 36514 applications to the banks 23,197 cases were sanctioned by the banks after further scrutiny. The position with regard to the curren financial year will be known only after 31-3-1988.

STD facilities from Nagarjunasagar to other cities

*378. SHRIMATI RENUKA CHOWDHURY: Will the Minister of COMMUNICATIONS be pleased to state:

(a) whether there is any proposal under the consideration of Government to introduce STD facilities from Nagarjunasagar to important cities of the country;

(b) if so, what are the details of the sectors; and